(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 6 May 2004 (06.05.2004)

(10) International Publication Number WO 2004/038418 A1

(51) International Patent Classification7:

(74) Common Representative: MTM LABORATORIES AG; Im Neuenheimer Feld 583, 69120 Heidelberg (DE).

(21) International Application Number:

PCT/EP2003/050738

G01N 33/574

(22) International Filing Date: 21 October 2003 (21.10.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

02024030.5

EP 28 October 2002 (28.10.2002)

03100584.6

7 March 2003 (07.03.2003)

- (71) Applicants (for all designated States except US): MTM LABORATORIES AG [DE/DE]; Im Neuenheimer Feld 583, 69120 Heidelberg (DE). DAKO-CYTOMATION DENMARK AS [DK/DK]; Produktionsvej 42, DK-2600 Glostrup (DK). BATRLA, Richard [DE/DE]; Kastellweg 32, 69120 Heidelberg (DE).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): RIDDER, Ruediger [DE/DE]; Untere Kippstrasse 5b, 69198 Schriesheim (DE). REICHERT, Anja [DE/DE]; Oderweg 11, 69226 Nussloch (DE). TRUNK-GEHMACHER, Marcus [DE/DE]; Bergheimer Strasse 132, 69115 Heidelberg (DE).

- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
- CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR IMPROVED DIAGNOSIS OF DYSPLASIAS

(57) Abstract: The present invention relates to a method for improved diagnosis of dysplasias based on simultaneous detection of INK4a gene products and at least one marker for cell proliferation. Particularly the present invention provides a method for discriminating dysplastic cells over-expressing INK4a gene products from cells over-expressing INK4a gene products without being dysplastic by detection of a marker suitable for characterising the proliferation properties of the respective cell. The characterisation of the proliferation properties may comprise the detection of a marker or a set of markers characteristic for active cell proliferation and/or a marker or a set of markers characteristic for retarded or ceased cell proliferation. The method presented herein thus enables for a specific diagnosis of dysplasias in histological and cytological specimens.

